

NON-MAJOR SYSTEMS OT&E

In accordance with Section 139, paragraph (b)(3), Title 10, United States Code, the Director, Operational Test and Evaluation (DOT&E) is the principle senior management official in the Department of Defense to “monitor and review all operational test and evaluation in the Department of Defense.” This includes Operational Test and Evaluation (OT&E) on smaller, non-major acquisition systems. Although several non-major systems, such as those directly affecting major systems and those specifically directed by Congress, are under direct oversight of DOT&E, the OT&E of most non-major systems are controlled by the Service Operational Test Agency’s (OTAs).

The Service OTAs are responsible for OT&E on hundreds of small programs. The Army Test and Evaluation Command is currently working on 483 Acquisition Category (ACAT) III or below programs and Navy COMOPTEVFOR retains 155. The Air Force Test and Evaluation Command (AFOTEC) retains 127 ACAT III programs under their cognizance. This is in addition to the numerous ACAT III programs managed by the Air Force’s Air Combat Command (ACC), Air Mobility Command, and Air Warfare Center. None of the Service OTAs are adequately funded for this work. With priority often going to the higher profile major acquisitions, the OTAs must balance many competing demands for very scarce resources.

These small programs represent some of the best examples of integrated Test and Evaluation (T&E), demonstrating very effective processes to more rapidly field new military equipment. Often, these processes are aggressive applications of the Secretary’s themes we have urged for five years now—early involvement by the operational testers, combining DT with OT, and combining testing and training. We are using successful examples from smaller programs to encourage the larger major system acquisitions to take advantage of the benefits of these themes.

One example of non-major system OT&E reported this year was Medium Shelter System (MSS)/Family of New Portable Shelters (FOPS). This was the only non-major system T&E activity in support of a full-rate production decision reported by AFOTEC in FY00. A description of the T&E by AFOTEC follows.

SYSTEM DESCRIPTION

MSS is an expandable, soft wall modular shelter system supported by an aluminum frame covered with vinyl fabric. MSS provides 1,500 square feet of floor space to accommodate large work or storage areas in a bare base environment. MSS has two large vehicle doors, two personnel doors, and six windows. The shelters are designed to be transportable by air, land, and sea, and compatible with C-130 aircraft and the 463L cargo loading system.

TESTING CONCEPT/METHODOLOGY

This Qualification Operational Test and Evaluation (QOT&E) was conducted by employing MSS in a variety of scenarios. Real-world operations (power production, welding, aircraft generation equipment, and vehicle maintenance) were conducted in two shelters, while direct comparison testing was conducted on two other test articles. Twenty assembly cycles were performed on a fifth MSS. Testing was also done to ensure MSS was compatible with existing bare base equipment.

NOTABLE RESULTS

MSS was found to be operationally effective and suitable. Twenty-two deficiencies were documented during QOT&E. All were resolved by ACC and the program office prior to production. Most deficiencies were related to the vehicle doors. MSS also exceeded the Key Performance Parameter of a 25 percent airlift sortie reduction over the existing system. MSS reduced the airlift footprint by 66 percent.

CONTRIBUTION/INFLUENCE QOT&E HAD ON THE PRODUCTION DECISION

MSS QOT&E ensured that the best product possible was fielded.

LESSONS LEARNED/TEST LIMITATIONS

Recommend all data analysis be completed prior to the Deficiency Review Board (DRB). The DRB was held immediately following the field events, and not all data analysis was complete. Upon completion of the data analysis, additional deficiencies were discovered that needed to be coordinated with key offices—thus delaying publication of the final report.

The following tables document some of the other non-major systems OT&E activities conducted by the Service OTAs. (These tables are limited to those T&E activities reported in FY00 that were intended to support full-rate production decisions.)

| NAVY | | | | | |
|---|------|-------------|--------------------|-------------|------------|
| SYSTEM NAME | ACAT | TEST DATES | EFFECTIVE | SUITABLE | SURVIVABLE |
| HARM Blk III | III | 12/98-9/99 | Yes | No | N/A |
| S-3 Critical Avionics Upgrade | IVT | 8/99-10/99 | Yes | Yes | N/A |
| C-2A Aircraft Block Upgrade | IV | 9/99-4/00 | Yes | Yes | N/A |
| H-60 Armed Helo | III | 8/99-12/99 | Yes | Yes | N/A |
| Tomahawk Cruise Missile | III | 10/99-12/99 | Yes | Yes | N/A |
| Joint Warning and Reporting Network | III | 11/99-12/99 | N/A DT Assist | N/A | N/A |
| Joint Services Imagery Processing System | III | 12/99 | Yes | Yes | N/A |
| Ship's Signal Exploitation Equipment | IVT | 11/99-12/99 | Yes | Yes | N/A |
| Cooperative OUTBOARD Logistics Update | III | 12/99 | Yes | No | N/A |
| Financial Air Clearance Transportation System | IVT | 12/99-2/00 | No | No | N/A |
| Acoustic Rapid COTS Insertion | III | 7/99-11/99 | Potentially EOA | Potentially | N/A |
| Closed Loop Degaussing | IVT | 2/00 | Yes | Yes | N/A |
| Submarine High Data Rate Antennae | IVT | 2/00-3/00 | N/A DT Assist | N/A | N/A |
| Submarine LF/VLF Receiver | IVT | 3/00-4/00 | Yes | Yes | N/A |
| Marine Mammal System | IVT | 7/00 | N/A DT Assist | N/A | N/A |
| Thin Line Towed Array | III | 8/00 | N/A DT Assist | N/A | N/A |
| Acoustic Intercept Receiver | III | 8/00 | N/A DT Assist | N/A | N/A |
| Non-Gasoline Burning Outboard Engine | III | 9/00 | N/A DT Assist | N/A | N/A |
| Acoustic Rapid COTS Insertion | III | 2/00 | N/A DT Assist | N/A | N/A |

| ARMY | | | | | |
|---|------|------------------------------------|------------------|-----------------------|--|
| SYSTEM NAME | ACAT | TEST DATES | | | |
| | | | EFFECTIVE | SUITABLE | SURVIVABLE |
| 12 Gauge Shotgun Non-Lethal Ammunition | III | 4/99-6/99, 9/ 99 | YES | YES | No issues |
| 25 mm, Armor-Piercing Fin Stabilized Discarding Sabot-Tracer (APFSDS-T), M919 Cartridge with Swiss Munitions Extruded/Impregnated (EI)-Propellant | IV | 6/98-6/99 | YES | YES | N/A |
| 3-KW Tactical Quiet Generator (TQG) | III | 11/98-8/99, 4/99-5/99 | YES | YES | YES |
| Air & Missile Defense Work Station (AMDWS) Software Version 1.0 | III | Continuous Evaluation | YES | YES | YES |
| Type I High Mobility Multi-purpose Wheeled Vehicle (HMMWV) Cargo Bed Cover (CBC) | III | 5/95-12/95, 5/99-8/99, 11/99-12/99 | YES | YES | YES |
| Jt Firefighter Integrated Response Ensemble (J-FIRE) Glove | III | 10/99, 1/00 | YES | YES | YES |
| Modernized Demolition Initiators XM151 & XM152 Boosters and XM152 Inert Booster | IV | 7/99-10/99 | YES | YES | YES |
| Movement Tracking System (MTS) | III | 4/00 | YES | YES, with limitations | NO |
| Palletized Load System Container Roll-In/Out Platform (PLS-CROP) | IV | Various FY98/99 | YES | YES | N/A |
| Portable Vehicle Arresting Barrier (PVAB) | III | Various FY99 | YES | YES | E3 survivable; other survivability N/A |
| XM95 Rifle Launched Non-Lethal Munition (RLNLM) | III | Various FY99, 1/00 | YES, with caveat | YES | No issues |

| MARINE CORPS | | | | | |
|------------------------------|-------------|-------------------|------------------|-----------------|-------------------|
| SYSTEM NAME | ACAT | TEST DATES | EFFECTIVE | SUITABLE | SURVIVABLE |
| Joint Service Combat Shotgun | III | 4/00 | Yes | Yes | N/A |

Notes:

- 1) MCOTEA and OPTEVFOR do not breakout survivability for separate treatment. Survivability is addressed as a component of Operational Effectiveness.
- 2) Operational Effectiveness and Suitability findings above were reflective of the system at the time of test. The system presented for the MS-III full-rate production decision often has changes incorporated as a result of the IOT&E experience.

